



# Installation Guide for Windows®



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Software ≡ Vision.

IDL Version 5.4  
September, 2000 Edition  
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# Before You Begin

- **Locate Your RSI Product Registration Form** — You may have already received your RSI Registration form by electronic mail or fax. It provides your product installation number and additional information about licensing IDL. If you haven't received it, first install IDL and then see [“Contacting Research Systems”](#) on page 32 for assistance. You do not need this form to install and run IDL in Demonstration mode.
- **If You're Installing on Windows NT or Windows 2000** — You must have Administrator privileges to install IDL on Windows NT or Windows 2000. Additionally, a user with administrative privileges must be the first one to start a session of IDL in order for the configuration to be complete.

If you do not have such privileges, the installation process cannot modify the system configuration of the machine and it will fail. After you have installed, you *do not* need Administrator privileges to run IDL on Windows NT or Windows 2000.

## IDL 5.4 Requirements for Windows

The following are the system requirements for installing IDL 5.4.

**Disk space required** — 130 MB (default installation).

**Operating System required** — Windows 95b/98, Windows NT 4.0 or Windows 2000.

**Network Interface Card** — A network interface card (NIC or Ethernet) is required for software-based-node-locked and floating licensing.

# IDL Licensing and Product Options

## Licensing Options

There are three types of IDL licensing: Demonstration, Evaluation and Purchased (or permanent). The differences between each type are:

License	Description
Demonstration	Restricted, seven minute access to IDL for demonstration purposes. No license is necessary. See <a href="#">“Running IDL in Demonstration Mode”</a> on page 9 for more information.
Evaluation	Full access to all functionality for a specified number of days. After installing IDL, see <a href="#">“Installing an Evaluation License”</a> on page 16 for licensing instructions.
Purchased/ Permanent	Full access with no time or functionality constraints. After installing IDL, see <a href="#">“Licensing IDL for Windows”</a> on page 15 for licensing instructions.

# Product Options

Three renditions of IDL are available: standard IDL, IDL Academic Edition and IDL Runtime.

Category	Description
<b>IDL</b>	This is the standard version of IDL offering full access to all of the software's features including the ability to run and compile programs.
<b>IDL Academic Edition</b>	This version of IDL provides full access to all of the software's features for qualified academic customers.
<b>IDL Runtime</b>	IDL Runtime lets users run IDL applications and other IDL-based programs that have been packaged as IDL .sav files. The IDL development environment and the command line are not accessible from applications on Runtime licenses.

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## Tip

To see some of the many ways IDL can help visualize data, start the Demo Applications. See [“Running the IDL Demo Applications”](#) on page 10 for instructions.

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# Running IDL in Demonstration Mode

If you want to run IDL for demonstration purposes, you can do so either from the CD-ROM or after installation.

## Running from the CD-ROM

To run IDL from the CD-ROM, complete the following steps:

1. **Insert the IDL CD-ROM in your CD-ROM drive.**

After a short delay, the IDL autorun program starts. If the autorun program does not start automatically, select **Start** → **Run**. In the Run dialog, type `X:\DEMO`, where `X` is the name of your CD-ROM drive, and click **OK**.

2. **Start IDL.**

Select **Start IDL** from the IDL autorun program. The Demo Mode dialog appears.

3. **Click OK.**

This starts IDL in seven minute demonstration mode.

## Installing and Running

To install and run in demonstration mode, complete the following steps:

1. **Install IDL.**

See “[Installing IDL](#)” on page 11. If you wish to run IDL only in unlicensed Demonstration mode, select **No** when the Product Licensing dialog appears.

## 2. **Start IDL.**

Click the Windows **Start** button, and select **Programs** → **Research Systems IDL 5.4** → **IDL**. IDL automatically starts in Demonstration mode until licensed.

# Running the IDL Demo Applications

The IDL Demo Applications illustrate some of the many ways IDL can help visualize data. The IDL Demo Applications are a series of programs written in the IDL language that demonstrate different aspects of IDL.

### **From the IDL CD-ROM:**

- Select **IDL Demo** from the IDL autorun program.

### **From your IDL installation:**

- Click the Windows **Start** button, and select **Programs** → **Research Systems IDL 5.4** → **IDL Demo**.

### **Note**

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If you have already started IDL, you can just type in DEMO at the IDL command prompt.

```
IDL> DEMO
```

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# Installing IDL

This sections describes how to install IDL 5.4 for Windows. Windows NT and 2000 users, see the section “If You’re Installing on Windows NT or 2000” on page 5 for important information.

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## Note

If you haven’t used this type of installer before, you may be required to restart your computer during the installation process. To avoid losing unsaved information, save all open files and close any open applications before installing IDL.

If you are prompted to reboot after installation, you will need to run the licensing wizard by selecting **Start** → **Programs** → **Research Systems IDL 5.4** → **License**.

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To install IDL 5.4, complete the following steps:

1. **Insert the IDL CD-ROM in your CD-ROM drive.**

After a short delay, the IDL autorun program starts. If the autorun program does not start automatically, select **Start** → **Run**. In the Run dialog, type `X:\DEMO`, where *X* is the name of your CD-ROM drive, and click **OK**.

2. **Start the IDL installation process.**

Click **Install IDL**. Then click the **Next** button on following introduction and welcome dialogs to start the installation and licensing wizards.

3. **Accept the license agreement.**

After reading the license agreement, select **Accept** to continue the installation.

4. **View the IDL Release Notes.**

The release notes contain important information about this release of IDL. Click **Next** after viewing the IDL Release Notes file.

5. **Complete the Customer Information form.**

Enter your User Name (the name with which you log on to your system) and the name of your organization.

For Windows NT and 2000 only, select one of the following:

- Install the application for all users on this computer, allowing any user to log on and access IDL.
- Install the application as “Only for me (User Name),” which allows only you to access IDL.

Click **Next** to continue.

6. **Choose the installation directory.**

In the Destination Folder dialog, select the directory in which to install IDL. To accept the recommended default installation directory, which is the disk with the greatest amount of free space, click **Next**. The default installation directory will be referred to as *RSI-Directory* in this guide. To save IDL in a different location, click **Change** and select an alternate location.

## 7. **Select the features to install.**

In the Custom Setup dialog, the typical installation features are pre-selected and indicated by the hard drive symbol. Clicking on a feature displays information about that option. To add the feature to your installation, click the red “X” and select to install the feature on your hard drive.

Note that if you will be installing a floating (client/server) license, you must select the **Network License Server** feature. Only a Windows NT or 2000 machine can be used as the *license server* for floating (client/server) licensing. Any Windows 95, 98, NT or 2000 machine can run IDL.

Click **Next** to continue.

## 8. **Begin the installation.**

Select **Install** from the Ready to Install dialog.

## 9. **Select to License IDL.**

To license IDL now, click **Yes**. For licensing instructions, see [“Licensing IDL for Windows”](#) on page 15. To license IDL at a later time, or to run IDL only in seven minute demonstration mode, click **No**.

The Install Adobe Acrobat dialog appears after you exit the licensing wizard. IDL online manuals require Acrobat Reader with Search 3.0 or greater. Select **Yes** to install Adobe Acrobat Reader 4.0 if you have not previously installed version 3.0 or greater.

Your installation is now complete.

**Note**

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On Windows NT and 2000 the first user to start a session of IDL must have administrator privileges.

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**Tip**

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To Modify or Repair your installation, insert the IDL CD-ROM and click **Install**. From the Program Maintenance dialog, you can Modify the installed components, or Repair your installation.

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# Licensing IDL for Windows

Identify the type of license you have purchased and follow the directions for that license type. IDL 5.4 for Windows has the following licensing options:

## Evaluation Licensing

Evaluation licenses use a key code and expiration date obtained from Research Systems. See [“Installing an Evaluation License”](#) on page 16 for instructions.

## Permanent Licensing

Methods of permanent licensing include the following options:

- **Node-Locked License** — Uses a *software key* to tie the license to the specific computer on which IDL will run. See [“Installing a Node-locked License”](#) on page 17.
- **Floating License** — Uses a license file generated by Research Systems or distributor. A floating license requires a license manager to handle license requests from client machines. Note that the designated license server must be a Windows NT/2000 machine. See [“Installing a Floating License”](#) on page 18.
- **HASP Licenses** — Uses a combination of a hardware dongle (HASP) and a key code to license IDL. For instructions, refer to [“HASP Licensing”](#) in the Windows chapter of the *License Management Guide*, located in the `info\docs` directory on your IDL CD-ROM.

# Installing an Evaluation License

After installing IDL, use the licensing wizard to install the key code for your evaluation license. If you do not have a key code, see [“Contacting Research Systems”](#) on page 32.

If you have exited the installation program, access the licensing wizard by selecting **Start** → **Programs** → **Research Systems IDL 5.4** → **License**.

1. **Access the Evaluation Licensing dialog.** Select the **Evaluation** button on the Product Licensing dialog.
2. **Enter your license information.**
  - Select the product — select the product you wish to license from the drop-down list. Only installed products are displayed.
  - Enter the expiration date — for example, 12-Oct-2000.
  - Enter the key code — enter the key *exactly* as it appears on your Registration form and click **Next**.
3. **Exit the Licensing wizard.** Click **Finish**.

IDL is now licensed. After your trial period expires, an error message appears stating this fact when you start IDL. Until re-licensed, IDL will operate only in timed Demonstration mode.



# Installing a Node-locked License

After installing IDL, use the licensing wizard to request and install your license file. Complete the following steps to license IDL:

1. **Request a License File.** See [“Requesting a License File”](#) on page 20 for instructions.
2. **Install the license file.** For instructions, see [“Installing a License File”](#) on page 25.
3. **Set Environment Variables.** If you have installed the license file in a location other than the default directory, *RSI-Directory*\license, where *RSI-Directory* is the directory where you have installed IDL, you must define the environment variable LM\_LICENSE\_FILE to point to the actual path of the license file before using IDL or the license manager programs. See [“Saving the License File in an Alternative Location”](#) in the Windows chapter of the *License Management Guide*, located in the info\docs directory of your IDL CD-ROM for instructions.

# Installing a Floating License

A Windows NT or Windows 2000 machine must be used as the license server for floating (client/server) licensing. Additionally, the Network License Server feature is necessary for managing floating licenses. If you have not installed this feature, run the installation program again and add the Network License Server feature.

To license IDL using a floating license, complete the following steps:

1. **Request a License File.** See [“Requesting a License File”](#) on page 20 for complete instructions.
2. **Install the License File.** For instructions, see [“Installing a License File”](#) on page 25.
3. **Set Environment Variables.** If you have installed the license file in a location other than the default directory, `RSI-Directory\license`, you must define the environment variable `LM_LICENSE_FILE` to point to the actual path of the license file before using IDL or the license manager programs. See [“Saving the License File in an Alternative Location”](#) in the Windows chapter of the *License Management Guide*, located in the `info\docs` directory of your IDL CD-ROM for instructions.
4. **Configure the License Manager.** The license manager must be configured before you start IDL. See [“Configuring the License Manager”](#) on page 27.

5. **Start the License Manager.** To start the license manager, see [“Starting and Stopping the License Manager”](#) on page 28 for instructions.
6. **Set up Client Environments for Software and License Access.** Each client machine must be configured for access to the software and the license file. See [“Configuring Client Environments for License Access”](#) on page 29.
7. **Manage Access to Floating Licenses.** You can set up an options file to reserve licenses for specific individuals or groups using an options file. For an overview, see [“Managing Access to Licenses”](#) on page 30.

# Requesting a License File

If you have purchased either a node-locked license or a floating license, you need a permanent license file from Research Systems or your distributor. A built-in licensing program simplifies the request and installation of your license file.

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**Note**

The electronic request program will not be able to retrieve the correct information if you do not have a configured network interface card and do not meet one or more of the following network protocols:

Windows 95/98/NT — Requires that either the NETBEUI Transport Protocol, the NW Link (IPX/SPX) Transport Protocol, or the SNMP service (for Windows NT) be installed on your system.

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To complete your license request, you will need your installation number from the Research Systems Product Registration Form. You should have already received this form by electronic mail or fax. If you have not received the form, contact Research Systems Technical Support. See [“Contacting Research Systems”](#) on page 32 for information.

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**Note**

If you have a floating license, the licensing wizard must be run from the Windows NT or 2000 server machine which will run the license

manager. This ensures proper generation of the server LMHostid and Nodename for your license file.

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## Note

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If the machine where you have installed IDL does not have e-mail capabilities, you can still run the license request wizard from this machine and transfer the resulting `request.txt` file to a machine with e-mail capabilities to send the file to Research Systems or your local distributor.

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1. **Access the license wizard.** If you have exited the installation program, access the licensing wizard by selecting **Start** → **Programs** → **IDL 5.4** → **License**.
2. **Begin the license request process.** Select **Permanent** from the Product Licensing dialog.
3. **Prepare a Request file.** Click **Request** to prepare a license request file to submit to Research Systems. This request file contains your machine's identifying information which is necessary to create a valid license file.
4. **Enter your information.** In the Product Licensing dialog, complete the following information:
  - **Contact Person** — Enter the name of the person to whom the license file should be sent.

- Email Address — Enter the e-mail address of the contact person.
  - Installation Number — Enter the installation number found on the Research Systems Product Registration Form. You should have already received this form by electronic mail or fax. If you have not received the form, contact Research Systems technical support. See [“Contacting Research Systems”](#) on page 32 for more information.
  - Site Notice — Enter the name which appears in the following format when you launch IDL: “licensed for use by <your site notice>.” This is typically your company name, department, or project.
5. **Select the license type.** Select either **Node Locked** or **Floating**. The license wizard automatically generates the correct Hostname and LMHostid as follows. These values are automatically generated by the registration program. Do not modify these values.
- Comments — Enter any comments you may have.
- Click **Next** to continue.
6. **Review your license request.** If the information is correct, click **Next** to save the license request file and proceed. If the information is incorrect, edit it in the text window or click **Back** to make any corrections.

7. **Send the license request file.** Click **Next** to send the license request file to Research Systems. If you did not purchase IDL directly from Research Systems, send the file to your local distributor.

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**Note**

If you can't send e-mail from your machine or if you receive a message stating that an attempt to send the e-mail was unsuccessful, see [“Manually Sending a License Request”](#) on page 24. A license file will be generated and sent to you at the e-mail address or fax number you supply.

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8. **Exit the license wizard.** Click **Finish** to exit the license request program.

When you receive your license file from Research Systems, run the license wizard again to install your license file. See [“Requesting a License File”](#) on page 20 for instructions.

If you do not receive a license file or any confirmation that the request was received, see the section below to manually re-send the request. To contact Research Systems, see [“Contacting Research Systems”](#) on page 32.

## Manually Sending a License Request

To manually send a license request, select the appropriate step below and e-mail your request to [register@ResearchSystems.com](mailto:register@ResearchSystems.com) or fax the request file text to Research Systems at (303) 786-9909. If you did not purchase IDL directly from Research Systems, send the file to your local distributor.

- **From the license wizard** — Select **Back** to display the request file. Copy all of the request information into an e-mail message or fax this text to Research Systems.
- **Outside of the license wizard** — Copy the request file, located in *RSI-Directory\license\rsi\_request.txt*, where *RSI-Directory* is the directory where you have installed IDL, and send it by fax or e-mail.



# Installing a License File

To license IDL using a software-based node-locked license or a floating license, you need to install your license file. If you have not requested your license file from Research Systems, see [“Requesting a License File”](#) on page 20, for instructions.

1. **Start the Licensing Wizard.** Click the Windows **Start** button, and select **Programs** → **IDL 5.4** → **License**.
2. **Display the Permanent Licensing dialog.** Select **Permanent** and then **License** from the licensing wizard dialogs.
3. **Enter your license file.** Paste the text of the license file into the dialog’s text window, or click **Browse** to select the license file which you have named `license.dat`. If you paste in your license file, remove any header lines that are included in the file but keep the comment lines that begin with the “#” character. If you have received your license file via fax or other hardcopy method, enter the information directly into the text window.

## Note

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If you are installing a floating license, make sure the DAEMON line of the license file points to the license manager, `idl_lmgrd.exe`, in the *RSI-Directory\IDL54\bin\bin.x86\* directory where *RSI-Directory* is the directory where you have installed IDL. Correct this path before proceeding. For more information on node-locked and floating license issues, see the Windows chapter of the *License*

*Management Guide* located in the `info\docs` directory of your CD-ROM.

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4. **Save the license file.** Click **Next** to save the license file in the default directory where you have installed IDL,  
`RSI-Directory\license\license.dat`  
If you have installed the license file in a different location, you must set the environment variable pointing to the `license.dat` file before starting IDL or the license manager. See [“Saving the License File in an Alternative Location”](#) in the Windows chapter of the *License Management Guide* located in the `info\docs` directory on your CD-ROM.

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#### **Note**

If you receive a message that there is an existing license file, save the existing file under a different name before proceeding. While the new license usually contains information for all currently licensed products, save the old file as a safeguard against destroying license information. Continue with licensing to save the new license file in the default location.

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5. **Exit the licensing wizard.** Click **Finish**.

If you are installing a node-locked license, IDL is now licensed. If you are installing a floating license, you must configure the license manager. Continue with licensing instruction in the section [“Installing a Floating License”](#) on page 18.

## Configuring the License Manager

After installing the floating license file, you must configure and start the license manager. Included with your installation is a graphical interface for configuring the license manager, the FLEXlm License Manager Control Panel. With this utility, you can define license manager and license file paths, and start, stop, and monitor the license manager.

1. **Open the license manager control panel.** Open the FLEXlm License Manager Control Panel by selecting **Start** → **Settings** → **Control Panel** and double-clicking on the FLEXlm License Manager icon.
2. **Setup the license paths.** Click the **Setup** tab and enter paths for:
  - **The license manager** — **Browse** to find `lmgrd.exe`, located in the *RSI-Directory*\IDL54\bin\bin.x86 directory, where *RSI-Directory* is the directory where you have installed IDL.
  - **The license file** — **Browse** to find `license.dat`, located in the *RSI-Directory*\license directory.
  - **The debug log file** — Choose a location to save the license manager log reports. A typical choice is `lmgrd_log.txt` in the *RSI-Directory*\license directory.
3. **Start the license manager at boot time.** Check the boxes **Use NT Services** and **Start Server at Power-Up** to automatically start the license manager when the server is started.

4. **Accept the changes.** Click **Apply** to save your license manager configurations.

---

**Note**

After selecting **Start Server at Power-up**, note that the license manager will not be started automatically until the next time the machine is rebooted. Once you have started the service manually and it is operating as desired, you may want to restart your machine to verify that automatic startup is operating correctly.

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## Starting and Stopping the License Manager

In the FLEXlm Control Panel, you can easily start, stop and see the status of the license manager.

**Starting the license manager** — Select the **Control** tab and click **Start** to start the license manager.

**Monitoring the license manager** — Click **Status** to see the current operational status of the license manager.

**Stopping the license manager** — Click **Stop** to disable the license manager. IDL will run only in timed Demonstration mode without an available license.

# Configuring Client Environments for License Access

To allow network access to IDL installed on a server, the client machines must have access to both the Research Systems software and the license file used by the license manager.

Research Systems recommends having a local installation of your RSI product on each client machine and setting the client machine to access the `license.dat` file in one of the following ways:

- Create a `LM_LICENSE_FILE` system variable with a value of the server's `port@host`, or with a value of the file path to a local copy of the `license.dat` file, on each client machine.
- Save a copy of the `license.dat` file in each client machine's `RSI-Directory\license` directory where `RSI-Directory` is the directory where you have installed IDL. The license file installed on the client machine must be an exact duplicate of the file on the server machine.

## Tip

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For more detailed information on this floating license issue, see [“Configuring Your Client Environments for License Access”](#) in the Windows chapter of the *License Management Guide* located in the `info\docs` directory on your IDL CD-ROM. There you will find detailed instructions on managing floating licenses and troubleshooting.

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# Managing Access to Licenses

Administrators can customize IDL license management by creating an options file. This file allows administrators to:

- Allow or deny access to a product or product features.
- Reserve licenses for users or groups.
- Control what is logged in the report log file.

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## Note

You must stop and restart the license manager each time the options file is altered for any changes in the options file to take effect.

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If you are interested in creating an options file see [“Managing Access to Licenses”](#) in the Windows chapter of the *License Management Guide*, located in the `info\docs` directory of your CD-ROM. There you will find detailed instructions, a list of available keywords and examples to help you easily create an options file.

# Viewing or Modifying the License File

## Locate the License File

1. Click **Start** → **Programs** → **Research Systems IDL 5.4** → **License**.
2. Select **Permanent** and **License** to display the license text file window. If you have a file saved in the default location, *RST-Directory\license\license.dat*, where *RST-Directory* is the directory where you have installed IDL, it will appear in the text window. If you have saved the file in another location, click **Browse** to find it.

## Altering License File Properties

### Warning

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Changing license file lines other than those discussed below will invalidate your license file, causing your IDL installation to run only in Demonstration mode. Altering individual **FEATURE**, **FEATURESET**, or **INCREMENT** lines destroys the file.

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Only items in the following lines may be changed. Not all licenses have all types of lines.

- host names (but not host IDs) on the **SERVER** line
- port numbers on the **SERVER** line
- path names on the **DAEMON** line

# Contacting Research Systems

If you have problems with your installation, contact Research Systems technical support for assistance:

- E-mail: [support@ResearchSystems.com](mailto:support@ResearchSystems.com)
- Phone: (303) 413-3920
- Fax: (303) 786-9909
- Web page: <http://www.ResearchSystems.com> — Visit the Tech Tips section on our Web page for Frequently Asked Questions.

International customers should contact their local Research Systems office or distributor for technical support.